## LED Street Lighting Webinar Questions & Answers May 29, 2015

1. Was the O&M contract bidding done under Chapter 25A or is that a separate procurement?

Yes, the O&M contract was included as part of the Ch. 25A procurement as a separate form of agreement entered into between the Contractor and each Municipality.

2. What are the Participation Agreements that were done June 14? Who are parties and what was content?

A Participation Agreement was signed between the Cape Light Compact and each of the participating municipalities outlining their respective roles for the LED street lighting retrofit projects. Municipalities assumed responsibility for providing police details during the retrofits as well as maintenance after project completion.

3. Can you give an example of things that were changed moving forward on the project based on feedback from communities on the demonstration project?

Provincetown provided helpful feedback during the demo phase on the specification of warmer color temperature and optional field installed backlight controls (shields).

4. Describe what a demonstration project is.

A demonstration project can also be called a pilot. The goals are to field-test the selected LED streetlight product(s) for lighting characteristics such as color temperature, brightness, etc., to see if they meet the needs and more importantly, to solicit public input and feedback to gain support for the project.

5. Did the Cape project replace/upgrade lighting controls? ex. off-peak dimming

The roadway streetlights all include the standard photocell controls that control a dusk-to-dawn operation. Optional adaptive control capability was specified and tested in one location.

6. What percentage of the maintenance costs was saved?

Approximately 70 percent savings in O&M costs with the LED fixtures vs. non-LED fixtures.

7. Very interested in decorative fixtures – would you recommend screw in replacement or replacement fixtures?

Decorative fixtures, based on the experience on the Cape and Vineyard, are very specific to the locale, type of existing fixture, and were handled on a case-by-case basis, including screening for cost-effectiveness as these were measures incentivized through the energy efficiency program.

8. Is anyone aware of any inter-municipal agreements whereby one town hires DPW/Lighting staff from another town to install and maintain LED streetlights?

This is an option for municipalities. They may hire another town's staff to perform a street-lighting retrofit or maintenance. For example, the Town of Acton has hired the Wellesley Municipal Light Plant to retrofit their streetlights with LEDs using, in part, Green Community grant funds.

9. Given that the project was done in separate phases, were there separate investment grade audit agreements and separate energy management services agreements for each phase?

No, the phasing approach was part of the contractor(s) proposal and included under one IGA and EMS agreements – each phase was approved through separate Notices To Proceed and one final combined IGA Report issued.

10. Did the utility [Eversource] put the towns on a higher rate after the conversion? National Grid will put our town on a higher cost rate if we convert.

No, Eversource's tariffs do not present this barrier as their S-2 tariff provides for "other lights" subject to the approval of the utility where NSTAR/Eversource accepts LED fixtures and establishes new billing codes to reflect the lower energy use. Some municipalities served by National Grid are served by the S2 tariff dating to 1998, which allows municipalities to own the streetlights but the utility provides maintenance. This tariff locked in the costs for this timeframe and remaining at these rates requires the municipalities to make no changes to the streetlights. Thus, perversely, these municipalities may face higher rates if they retrofit their streetlights with LED technology because they will be moved to the S5 tariff and will assume maintenance responsibilities.

11. What is the prognosis for Eversource converting to LED'S for their owned/managed (private) streetlights?

Streetlights may be owned by a municipality (or other public entity) or by the electric utility. Unitil does, while National Grid and Eversource do not, currently offer a tariff allowing LED technology in unmetered streetlights. The Energy Efficiency Advisory Committee, which provides input into the efficiency savings rates set for each efficiency planning period, is keenly interested in promoting LED

12. All of Dalton's lights are owned by Eversource (approx. 700). We would like to do a demo project on Main St. with 54 lights. Any advice for how to proceed?

As mentioned above, Eversource's utility-owned street-lighting tariff does not allow for LED technology. You might consider reaching out to Eversource to explore the possibility of a pilot. In addition, if Dalton wished to consider purchasing the streetlights from Eversource and take-over O&M, there is a DPU-approved process that starts by asking the utility for the inventory of streetlights and what the purchase price would be.

13. Who was the contractor on this project? (Was it Siemens?)

The contractor was Siemens Industry, Inc.

14. What about town that has a municipal electric [municipal lighting plant]? The existing lights are owned by the electric municipal, but we pay a year usage fee. We have 2600 hundreds lights in town?

Several of the Municipal Lighting Plants are currently working on retrofitting their streetlights with LED technology. DOER suggests beginning a conversation with your municipal lighting plant and is able to connect you with other municipal lighting plants going through the process.

15. How much was the GPS audit per light or per 1000 lights, did you encounter much in terms of pole number discrepancies?

The GPS audit cost was \$14.40/fixture. Yes, pole number discrepancies (vs. the utility provided inventory) included: incorrect numbers, missing poles, added poles and inaccurate type of fixture. The revised inventory provided a significant improvement in billing accuracy.